

WHAT IS CLAIMED IS:

1. A method of determining a recording schedule for a PVR system with resources, comprising:

receiving a first user input requesting zero or more jobs;

5 determining one or more solutions for the zero or more jobs based on a schedule, each solution requiring a set of resources over a set of intervals, wherein a number of resources required is greater than a number of resources available; and

determining one or more plans, each plan having a solution for each of the zero or more jobs wherein resources used by the zero or more jobs are less than or equal to
10 the number of resources available at each interval.

2. The method of claim 1, further comprising:

receiving a priority for each job from a user.

15 3. The method of claim 1, further comprising:

assigning scores to the one or more plans.

4. The method of claim 3, further comprising:

automatically determining a preferred plan based on the assigned scores.

20 5. The method of claim 4, further comprising:

the step of assigning scores includes assigning scores based on a user assigned priority for each job.

25 6. The method of claim 4, further comprising:

the step of assigning scores includes assigning scores based on components of each of the zero or more jobs.

7. The method of claim 3, further comprising:

30 ranking the one or more plans based on the assigned scores.

8. The method of claim 1, wherein:
the step of determining one or more plans includes determining two or more plans.

5 9. The method of claim 1, further comprising:
automatically determining a preferred plan based on scores, wherein the scores are based on components of each of the jobs, the components including at least one element selected from the group including a recording time, a recording quality, a type of program, a relative position in an order a job of the two or more jobs was input, an inclusion
10 of bonus time and a keyword.

10. The method of claim 1, further comprising:
receiving a trigger;
in response to receiving the trigger, determining one or more new solutions for
15 the zero or more jobs; and
determining a new plan including one new solution for each job such that the solutions use less than or equal to the number of resources available.

11. The method of claim 10, wherein:
20 the step of receiving the trigger includes receiving an updated schedule from an input.

12. The method of claim 10, wherein:
the step of receiving the trigger includes receiving an updated schedule from
25 an input, the input selected from a group including a satellite signal, a cable signal, an antenna signal, and a telephone line signal.

13. The method of claim 10, wherein:
the step of receiving the trigger includes receiving a second user input.

14. The method of claim 1, further comprising:
providing a user with the two or more plans; and
receiving a second user input that indicates a preferred plan.
- 5 15. The method of claim 14, further comprising:
determining from the second user input a user priority for at least one job.
16. The method of claim 15, further comprising:
receiving a third user input adding a new job;
10 determining one or more new solutions for the new job; and
determining a new plan including one of the one or more new solutions,
wherein determining the plan is based in part on the second user input.
17. The method of claim 1, wherein:
15 the step of determining one or more plans includes determining the one or
more plans based on a pre-defined user preference.
18. The method of claim 17, further comprising:
filtering the one or more plans including keeping a first plan for presentation
20 to a user and ignoring a second plan so that the second plan is not presented to the user.
19. The method of claim 18, wherein:
the first plan has a first set of solutions for the zero or more jobs and the
second plan has a second set of solutions for the zero or more jobs, wherein at least one
25 solution for at least one job of the first set of solutions is preferred over a corresponding
solution for the at least one job of the second set of solutions.
20. The method of claim 17, further comprising:
scoring the one or more plans based on the pre-defined user preference; and
30 filtering the one or more plans such that at least one plan with a higher score

than other plans of the one or more plans is presented to a user and at least one plan with a lower score than other plans of the one or more plans is not presented to the user.

21. The method of claim 1, further comprising:
5 presenting the one or more plans to the user.

22. The method of claim 21, wherein:
presenting the one or more plans to the user includes presenting the plans in a
first category and a second category, the first category including zero or more plans having
10 no null solutions and the second category including zero or more plans having at least one
null solution.

23. The method of claim 1, wherein:
the step of receiving a first user input request zero or more jobs includes
15 receiving a request to record a program.

24. The method of claim 1, wherein:
the step of receiving a first user input request zero or more jobs includes
receiving a request to accomplish a task.
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